Low Cost, PC-Based Real-Time Dynamic Terrain

PHASE III IMPACT

- $1,240,673 in Research and Development funds.
- DVC has signed an agreement with Multigen Paradigm to provide run-time and development software for their Dynamic Terrain core product for the new release of Vega Prime. This agreement is expected to generate a potential $4.2 million for DVC over the next five years.
- Other commercial software image generation run-time providers like SGI, CG2, and Q3D are taking strong interest in DVC's ability to offer the Dynamic Terrain core software product to enhance their offerings. DVC intends to establish similar relationships with these and other third party suppliers and will most likely extend sales of the Dynamic Terrain core product by another $4.2 million.

Realistic terrain dynamics is a requirement for training future Objective Force maneuver forces in a synthetic environment. Terrain dynamics, which includes mine breaching, defensive positioning, bomb damage, building damage, vehicle dynamics, soil dynamics, mobility, soil plowing, flood effects, and varying soil surfaces, enhances the quality of command decisions that rely on this critical input from a virtual environment. The Army's terrain dynamics needs of the Combined Arms Tactical Trainer, Family of Simulations, and the Maneuver Support Battle Laboratory are different, yet contain similar requirements. Diamond Visionics met and exceeded these requirements with its Dynamic Terrain core product that allows real-time performance of deformed terrain during run-time of the synthetic environment, the ability to change the terrain anywhere in the database, and operates on a low cost PC-based system for optimal utilization. The terrain changes are communicated to several networked PC-based systems and the terrain reflects changes made by a remote originator. Diamond Visionics developed this product originally through a medical simulation technology which can deform soft body tissue, real-time on a PC.